TEST VIDEO

https://youtu.be/QfamPWrm3xE

INTERFACES

My project attempts to mimic an imaginary relationship between the machine/sketch and a human interactor; an attempt to read and understand one another but trapped in miscommunication by a difference in innate language and recognition of expressions. The project uses a real time face detection through the camera in the users laptop, and identifies the emotion displayed on the user (labelled $i=0$, with further users in the frame being $i+1$) using the m15.js face API to then change the overall screen effect to a background colour relative to the defined emotion, and a passage of text translated into binary in the foreground; where the human emotions are a language the machine struggles to understand and the binary takes a similar role to us.

The text used for each are short lines of poetry based on each of the emotions, relaying back an idea of the machine attempting to not only identify but somehow also empathise through mimicking the users humanity, however with a sort of dramatic clunkiness now only in its wording but also the execution, making what we know to be a much deeper and complex process that we evolved into over thousands of years of identifying and communicating facial expressions and emotions. This leads from many criticisms of emotional facial recognition as a practical use system (in reference to how it is then affected by issues of bias, accuracy and reliability and further ethical implications regarding consent or of its use in possible manipulation through marketing techniques or political use) most namely in how a machine would be unable to grasp the nature of such multifaceted and dynamic concepts of emotions. In my mind the project serves as a sort of conversation, not unlike ideas like human-computer interactions (HCI) by Eva Hudlicka, but this project of course only uses visual cues from the identified facial expressions, completely limiting it as an emotional analysis tool, an idea even seen in 1997 "Affective Computing" by Rosalind W. Picard, where 'affective computing' is able to have systems that recognize, interpret, process, and simulate human affects or emotions.

I began with thinking about 'emotive interfaces', which lead me to looking at different p5.js projects to find a relevant real time face detection example that I could use as a base for my 'emotional analysis' program (I landed on "09 emotion recognition in real time by jodiechifunyise"). At first I wanted to be able to use my graphic coded language that I developed last year in a project where I wanted a mechanical mathematic system to contrast emotive themes, but found it to be increasingly difficult to program in a short time frame and not exactly relevant to the project's interaction. I thought I should keep it simple with the language, reaching for binary –

abstract enough to the human eye and able to read as text. Starting with neutral, reading "Hello. I can feel with you", beginning the idea of a copy and learn relationship. Then when triggered by the emotion detection we have 'Sweet untethered sunshine clear eyes' (happy), 'soft fat raindrops grey pulling' (sad), 'Grit like vibrating volatile blind all screaming' (anger), 'The hell to look upon all feeling' (disgusted), 'Hark exclamation punch not disappointed' (surprised), 'Unknown where end some great monster' (fearful). I could very much go into analysis of these phrases, with some of them being snippets from poetry I wrote previously, or recentred from the perspective of the machine, with melodramatic interpretations, as if the robot is guessing from the exaggerated facial expressions. When organising the overall designs, I also debated using text colours that would add to the overall theme of the emotions and make the page look more synchronous visually, more integrated to the emotion identified, but then I thought using the green text of a 90s style coding sheet throughout the different styles, rather than just the black background neutral page would bring it back to the context of it being by a machine. The clunkiness of this in my opinions adds more to the lack of cohesion in the overall emotion and the machines interpretation of it – face value miscommunication of someone complex and human.

I really enjoy the idea of the almost naïve and childlike relationship where having a machine almost 'tell' a user how they're feeling, as if from a place of knowing human emotion better and without risk of being incorrect. If I took this forward, it would be interesting to increase the inputs from just visual to integrating sound; whether that be listening for hints to the emotional state of the user or outputting a sound to add to one that's been identified. I'm aware the project may come across simple, basic even, but I think has served personally as a useful thought process bridging ideas of emotion vs logic and decoding of feelings within a self portrait. The very much about the comparisons of how the user and machine would experience it, trying childlike aspect is a fun realisation of the anthropomorphising of the machine. It is childlike in comparison to the time humans have had to

My interpretation of the project is to balance that experience of unknowns, and how the identification of emotions work as being part of the abstraction of interfaces. Similar to how mechanical interfaces hide more complex inner workings to provide a simpler communication between unrelated entities. Human relationships, from the most superficial to deep, can hinge largely on the back and forth reactions of outwardly shown emotions, and often more on the disguising and hiding of these outward emotions. The face is the human interface with subtleties most humans are fluent in, that the machine that replies only on positioning of features cannot read, in the same way the alternate perspective is that of a person who could work out what the machines poetry says, despite not fluently.

But who's to say; in a very short amount of time AI and the mechanical world may well have full understanding of human emotion, whether that be through manners of empathy or sympathy, and humans fully fluent in the language of binary so that we may understand the poetry of the robots!